IDG131 pp3

DEPARTMENT OF THE ARMY
WALLA WALLA DISTRICT, CORPS OF ENGINEERS
201 NORTH THIRD AVENUE
WALLA WALLA, WA 99362-1876

October 10, 2012

Operations Division

Chris Gebhardt
U.S. Environmental Protection Agency (Region 10)
NPDES Compliance Unit
1200 Sixth Avenue, Suite 900, MS OCE-133
Seattle, WA 98101

Dear Mr. Gebhardt:

The U.S. Army Corps of Engineers, Walla Walla District (Corps), and the U.S. Fish and Wildlife Service (USFWS), hereby submit this Annual Status Report (enclosed) for the Dworshak Fish Hatchery, in accordance with paragraph 31 of the Federal Facility Compliance Agreement (FFCA), signed last by the Environmental Protection Agency (EPA) on September 7, 2011, addressing alleged violations of the Idaho Cold Water Aquaculture NPDES Permit No. IDG131003 (Permit) and Sections 301(a) and 402(a) of the Clean Water Act (33 U.S.C. § 1251 *et seq.*). This Report was prepared in coordination with the Nez Perce Tribe (co-manager of the Hatchery).

Please contact Mr. Damian Walter, Environmental Compliance Coordinator, at (509) 527-7121 if you have additional questions or comments.

Sincerely,

Richard D. Werner, P.E.
Chief, Operations Division

Enclosures

U.S. Army Corps of Engineers
Walla Walla District
201 N. 3rd
Walla Walla, WA 99362

U.S. Department of the Interior
Fish and Wildlife Service
Dworshak Fisheries Complex
276 Dworshak Complex Road
Orofino, ID 83544

October 11, 2012

Annual Status Report
Federal Facility Compliance Agreement, Dworshak Fish Hatchery (NPDES Permit No. IDG131003)

The U.S. Army Corps of Engineers, Walla Walla District (Corps), and the U.S. Fish and Wildlife Service (USFWS), hereby generate this Annual Status Report (Report) for the Dworshak Fish Hatchery (Hatchery), in accordance with paragraph 31 of the Federal Facility Compliance Agreement (FFCA), signed last by the Environmental Protection Agency (EPA) on September 7, 2011, addressing alleged violations of the Idaho Cold Water Aquaculture NPDES Permit No. IDG131003 (Permit) and Sections 301(a) and 402(a) of the Clean Water Act (33 U.S.C. § 1251 *et seq.*). This Report was prepared in coordination with the Nez Perce Tribe (co-manager of the Hatchery).

1. **Findings.** The FFCA (Paragraphs 22-24) lists the following alleged violations of the Permit and Clean Water Act (Section 402(a)):

a. At the June 18, 2008 inspection, the EPA inspector observed the discharge of untreated cleaning wastewater from System II rearing units at the Facility in violation of Section II.B.2.d of the Current Permit. This constitutes one violation of the Permit.

b. As constructed, System III rearing units routinely discharge untreated cleaning wastewater in violation of Section II.B.2.d of the Current Permit. Between December 2007 and July 2011, every time the Facility discharged untreated cleaning wastewater from the System III rearing units into waters of the U.S., the Facility violated Section II.B.2.d of the Current Permit.

c. Section II.C of the Previous Permit and Section V.B of the Current Permit requires USFWS to submit monthly discharge monitoring reports ("DMRs") for the Facility. Between December 2004 and December 2007, the USFWS failed to submit

DMRs for the Facility in violation of Section II.C of the Expired Permit and Section V.B of the Current Permit. This constitutes thirty-three (33) violations.

2. **Deadlines/Milestones.**

a. By September 30, 2011, the Facility was to have instituted the interim measure of adapting the System III biofilter reuse system ponds into a wastewater treatment system. This is intended to provide treatment to the cleaning wastewater from System III so as to bring that portion of the Facility into compliance with Section II.B.2.d of the Current Permit.

b. Attachment A to the FFCA sets forth a Compliance Plan that describes four (4) construction phases that are anticipated to correspond with annual congressional appropriations in amounts adequate to complete each phase. If annually appropriated or other funding is adequate to complete construction phases 1-3, the Facility shall achieve full compliance with the conditions and requirements set forth in the Current Permit by December 31, 2016.

3. **Progress.**

a. Various operational and infrastructure measures have been taken by USFWS and the Corps to achieve compliance. These measures are set forth in Attachment B of the FFCA.

b. The Corps and USFWS instituted the interim measures as described in 2.a above on or before September 30, 2011.

c. Compliance Plan.

i. Construction Phase 1.

A. Installation of Vacuum Degassing Towers on Main Aeration Sump. This action is being planned as a small capital improvement project. Most of the materials have been purchased, at a cost of $124,885, and are onsite. The additional funding ($650,000) to implement this action has been requested in the 2013 budget and will cover 50% of the degassing towers.

B. Finalize Hatchery Strategic Plan Design (Strategic Plan). This action is complete. The Strategic Plan is being incorporated in the final integration design referenced in C below.

C. Finalize integration of CH2MHill NPDES Design, dated June 15, 2011, with the Strategic Plan. The Corps included a request for $747,000 in the fiscal year 2013 (FY13) budget to complete the integration design. The FY13 budget/funding request was not approved at the Corps' Headquarters level, given national priorities and critical mission requirements, but the Corps was able to set aside $165,000 to initiate the integration design action. The Corps expects to receive a 30% design package by the end

of 2012. The Corps has requested funding in the FY14 budget request to complete the integration design. Additionally, the Corps will continue to try and identify other funding sources for this action.

ii. Construction Phase 2. Convert System II to circular tanks with partial reuse to reduce water consumption up to approximately 80% and energy consumption by approximately 60.5% of system II; Install covering over System II; and Commence construction of NPDES compliant wastewater treatment screen system for Systems I, II, III, the nursery and incubation.

A. FY13 Budget. The Corps included a request for $3,332,000 in the FY13 budget to complete the Phase 2 construction actions. The FY13 budget/funding request was not approved at the Corps' Headquarters level, given national priorities and critical mission requirements.

B. FY14 Budget. The Corps included a request for funding in the FY14 budget to complete the integration design plans and specifications and System II construction actions. Additionally, the Corps will continue to try and identify other funding sources for these actions.

d. Operational and Infrastructure Measures taken by the Corps and USFWS. See Attachment A.

4. **Noncompliance (if any).** None.

5. **Other.** The Walla Walla District is conducting a study to examine ways to raise fish more efficiently and effectively at Dworshak Hatchery. The Dworshak Hatchery Rehabilitation Study will evaluate existing conditions, identify problem areas, and costs to develop a recommended plan for rehabilitation of the hatchery in order to enable the Corps to best meet fish mitigation requirements. A draft report is scheduled to be completed by the end of FY13. Following technical and policy review a final report will be available in FY14. The Rehabilitation Study is a decision document that will support a funding request for rehabilitation work at the Dworshak Hatchery. Although not anticipated, the results of the Rehabilitation Study could indicate a need to modify the FFCA Compliance Plan and the Corps and USFWS will initiate discussions with EPA if that becomes necessary.

IN WITNESS WHEREOF, I hereby certify the information contained in this Report is true and accurate to the best of my knowledge, signed this 12 day of October 2012.

Richard D. Werner

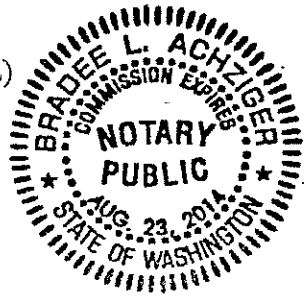
Richard D. Werner, P.E.
Chief, Operations Division
U.S. Army Corps of Engineers, Walla Walla District

STATE OF WASHINGTON

COUNTY OF WALLA WALLA

Signed and sworn to (or affirmed) before me by Richard D. Werner on the 12th day of October, 2012.

(SEAL)



Bradee L. Achziger

Notary Public (State of Washington)
My commission expires on August 23, 2014

IN WITNESS WHEREOF, I hereby certify the information contained in this Report is true and accurate to the best of my knowledge, signed this 10th day of October 2012.

Mark R. Drobish

Mark Drobish
Acting Dworshak Complex Manager
USFWS

STATE OF IDAHO

COUNTY OF Clearwater

Signed and sworn to (or affirmed) before me by Mark Drobish on the 10th day of October, 2012.

(SEAL)

BRENDA THOMAS NOTARY PUBLIC STATE OF IDAHO

Brenda Thomas

Notary Public (State of Idaho)
My commission expires on 8/15/2017.

Attachment A.

Operational and Infrastructural Measures

Status Report September 2011-2012

3. c. ii. D. **Progress-** Measures taken to address the discharge of untreated cleaning wastewater discharge to Clearwater River (River) (Section II.B.2.d of the Current Permit)

1. History: Cleaning waste from System III rearing units discharged directly to the River. (Map of facility on page 5.)

2. Interim measures:

a. In 2011 steelhead rearing densities in Systems I and II were increased allowing reduced use of the System III. The steelhead are initially reared in the nursery and then moved to System I where they are reared on reservoir water into late-July. At this time, reservoir water is a limiting factor so the larger/older fish are then moved to System III to allow for younger steelhead to be moved from the nursery to System I. Through August and September, the steelhead are gradually moved from System I into System II. A total of 9 ponds were used in System III in 2011. In 2012, plans were made to utilize 16 ponds (10 steelhead, 6 Coho). At this level, all water was pumped to the System III settling basin to allow solids to settle during cleaning operations.

b. In July 2011 the installation of two slide gates was completed; however the gates were not needed until we began using 15 ponds in 2012. The gates enable the discharged water from the 16 rearing units on south side of System III and 2 units on the north side to be separated from the remaining 16 ponds on the north side of System III. Once the flow was separated, we were able to redirect all water generated during cleaning from either side of System III separately. Decreased flow to the bio-filter beds allows the solids during cleaning operations to settle out, effectively creating a treatment.

c. By August 30, 2011 the crew had devised a way to use the System III bio-filters as a settling basin for the water discharged during System III cleaning operations; the first protocol had been written. The low volume of water added to the basin when cleaning the 9 units did not require the use of discharge pipes from the bio-filters (outfalls 006a and 006b) as previously thought. Treated water from the bio-filters was discharged to the settling pond (outfall 005). Refer to attached map for location of outfalls.

d. In 2012, we continued to pond System I at high densities as steelhead were moved from the nursery to outside rearing. However given the information learned from 2011, the decision

was made to use up to 16 rearing units in System III as the fish needed to be moved from System I as reservoir water became limiting.

e. In July 2012, the discharge piping from the System III bio-filter was connected to the outflow piping of the old reuse system sump. The modification and the installation of a submersible pump in the adjacent channel allows supernatant from the biofilter to be drawn off, combined with full-flow water from the ladder and attraction channel and then discharged to the River (outfall 002). The settled solids in the bio-filter are pumped by an effluent pump to the off-line settling basin. In effect this System III discharge water is settled twice before discharging to the River (outfall 005).

f. The USFWS in collaboration with the Freshwater Institute held a class on July 24-25, 2012 in Boise, Idaho. The training provided information on the use of circular tanks and water reuse technology. The benefits of such technology are numerous including waste water treatment and improved water quality.

g. On July 31, 2012 water quality samples were taken during cleaning operations of System III. The results showed that the basin was effective at treating full-flow and cleaning waste from up to 15 rearing units flowing at a rate of approximately 600 gpm for approximately 45 minutes without exceeding our current permit.

h. Solids were removed from the Off-line Settling Basin on August 10, 2012.

i. On August 15, DNFH managers were notified that the primary line from the reservoir had been damaged. Clearwater Hatchery operates only on reservoir water to rear their fish. With the loss of water they needed alternative rearing space at another hatchery for the survival of the fish they had on station. It was determined that DNFH was the best alternative so plans were made to move 2.5 million spring Chinook to System III rearing units.

j. The Clearwater Hatchery transported 2.5 million Spring Chinook Salmon to the Dworshak Hatchery on August 27-29, 2012. These fish will be reared until March 2013 and then transported to release sites in March and early April. This addition puts system III at full loading capacity. Cleaning operations have been modified to clean approximately ½ of the system on two different days each week to allow all water during cleaning operations to be pumped to the System III biofilters.

k. The emergency situation prompted the USFWS to seek immediate action to figure out how to treat the waste water discharge in System III and do everything possible to avoid discharge cleaning waste to the River. Concurrently engineers at the USACE discovered an abandoned pipeline which had previously been capped off. By September 7 the pipe had been excavated and connected with a larger adjacent pipe which leads to the System II bio-filter. The joining of these pipes allows an increased volume of clean full-flow water to be discharged from the Systems I, II, and III to the River (new outfall point 017). Decreasing the clean water flowing

into the bio-filters allows more water to be treated during cleaning operations and provides additional space for settling solids from Systems II and III.

l. To date (September 25, 2012), we continue to improve our standard operating procedures and document improved cleaning protocols to increase the efficiency of the waste water treatment we currently have available to us. On September 19, 2012, we completed the water quality sampling for this quarter while cleaning of System II. We conducted a second sampling while cleaning System III on September 26, 2012. We expect the results of these discharge samples on October 1, 2012. We believe Dworshak is NPDES compliant as a result of the modifications to infrastructure and operational procedures. USFWS and Nez Perce Tribe's intent, taking NPDES considerations into account, is to utilize System III for additional production of Chinook salmon. The intent would be to utilize 25 to 34 of the burrows ponds in System III in the spring of 2013.

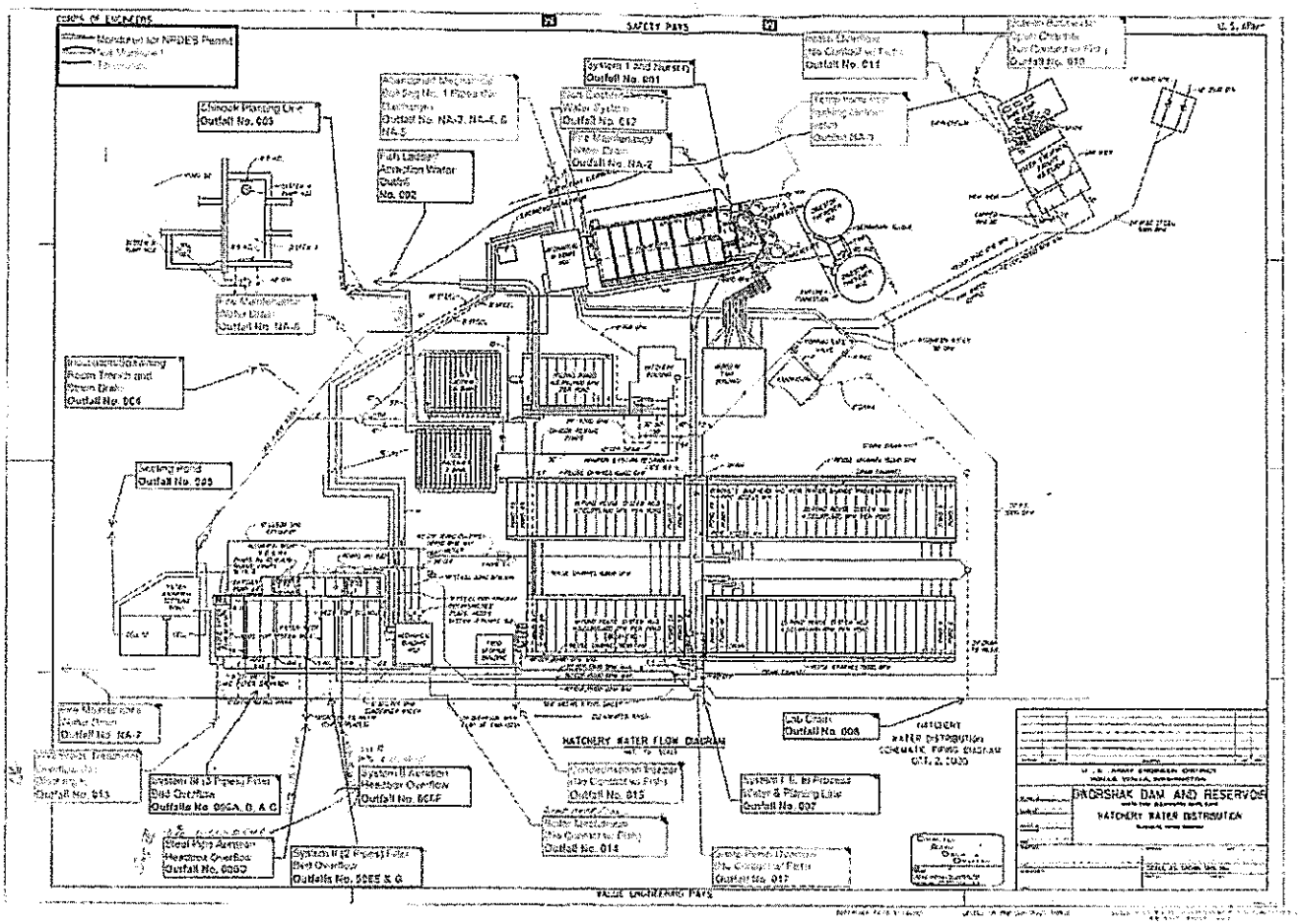
m. Since 2008 the Nez Perce Tribe has been conducting an adult steelhead reconditioning study at DNFH. Each of four 618 gallon circular tanks was discharging about 50 gpm into the offline settling basin. On September 21 the outflow was rerouted to the System III bio-filters.

n. In 2011 we reported that we had stopped the discharge from the Fish Planting Line (outfall 003) during normal operation. Since that time rearing densities have increased, the raceways now operate on serial reuse, and we have increased the flow rates. To compensate for the increased volume of water, we reopened the discharge point in August 2012. The outfall is compliant with the permit.

o. Previous operations included automatic operation of the pump in the raceway sump. In this mode the pump turns on when the float reaches a certain level and pumps water to the offline settling basin. The revised protocol now calls for turning the pump "On" during cleaning events and to "Auto" 30 minutes after cleaning. This reduces wear on the pumps and expedites removal of solids to the settling basin.

p. Future actions include a second training on water reuse in Orofino, Idaho on October 2-3, 2012; an on-site visit from EPA, ACOE and other interested parties to view and discuss the recent modifications on October 4, 2012

q. Mud valves which are used to divert cleaning waste from the rearing units to the offline settling basin do not seal tightly. The unnecessary pumping of water over works the pump and discharges clean water into the settling basin. We have purchased the new gaskets and plan on replacing them in October, 2012.


SAFETY PATH
Chinook Planting Line
Outfall No. 003
Outfall No. 004
Outfall No. 005
Outfall No. 006
Outfall No. 007
Outfall No. 008
Outfall No. 009
Outfall No. 011
Outfall No. 012
Outfall No. 013
Outfall No. 014
Outfall No. 015
Outfall No. 017
HATCHERY WATER FLOW DIAGRAM
DWORSHAK DAM AND RESERVOIR
HATCHERY WATER DISTRIBUTION
VALUE ENGINEERING PATH

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1	Robert Eskildsen	RE	20121010
2	Damian Walter	DW	20121010
3	Lonnie Mettler	LM	2012 1010
4	Dwayne Weston	DW	10/11/12
5	Andy Valentine	AV	10/12/12
6	Richard Werner	RW	10/12/12

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✓	SIGNATURE		SEE ME
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FROM	DATE (YYYYMMDD)
Damian Walter	20121010
TELEPHONE 527-7121	FAX
E-MAIL damian.j.walter@usace.army.mil	
ORGANIZATION Operations	

DA FORM 1222, NOV 2000 APD PE v1.00

PREVIOUS EDITIONS ARE OBSOLETE

FY12 FFCA Annual Status Report (UNCLASSIFIED)

Walter, Damian J NWW to: Chris Gebhardt 10/15/2012 04:55 PM
Cc: "Jill_Olson@fws.gov", "Mark_Drobish@fws.gov"

Classification: UNCLASSIFIED
Caveats: NONE

Chris:

Here is an electronic of the FFCA annual Status Report, I was told it went in the mail today.

Sincerely;
Damian Walter
Walla Walla District ECC

Classification: UNCLASSIFIED
Caveats: NONE

FY12 Annual Status Report.pdf